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The Effect of Individual Characteristics and Job Characteristics on Vocational School Teachers' Career Development in Province of North Sumatera

Eka Daryanto*

Departemen of Mechanical Engineering Education, State University of Medan, Medan 20221, Indonesia

Email: ekadaryanto@unimed.ac.id

Abstract

The influences on and outcomes of career development are one aspect of socialization as part of a broader process of human development in establishing their existence as a social factor in a professional institution. This study explores the relationship between individual characteristics, job characteristics with career development of teachers in vocational schools at the Province of North Sumatera, Indonesia. The sample size of this study was obtained using the proportional random sampling which further resulting a total number of 166 teachers who were found having the expected qualification in Mechanical Engineering subject. For the purpose of data collection, a questionnaire was developed as the main instrument of this study and distributed to all samples. To test the hypotheses, this study used a path analysis method. The hypotheses tests based on the path analysis on the research model revealed that individual characteristics and job characteristics. The result this study show that Individual Characteristics directly influence Career Development and Job Characteristics directly influence Career Development. The findings from this study also underline the importance on minimizing the gap among personal characteristics and improving the clarity of job assigned relevant to teachers' competencies through proper and continuous career development.

Keywords : Individual Characteristics; Job Characteristics and Career Development.

* Corresponding author

1. Introduction

In general, the competence of teachers in the North Sumatra is lower than other regions. Initial Competency Test Results (UKA) in 2012 teacher of vocational school (SMK) indicates that North Sumatra has a 25 position or rank of 33 provinces with an average value of 45.67 [1]. UKA average vocational school teachers in North Sumatra shows that lower teacher competence in the subject or pedagogical mastery. The data indicated that the professionalism of teachers in vocational schools in North Sumatra yet untested and unreliable, even still low nationally. Sutjipto [2], stating that that 43% of teachers are not qualified vocational and 17.2% of teachers teach subjects that are not his forte. These conditions are certainly very concerned, because how could the teachers can conduct learners to achieve the best learning achievement, while he only has the ability under ideal and yet reliable, and low professionalism.

Career satisfaction is the satisfaction of teachers for his success and career success will have an impact on the success of the teacher in the classroom. It is said to Nias [3] and Conley [4] that career teachers find great job satisfaction in the affective rewards of teaching, such as helping students learn and career satisfaction may be defined as a teacher's satisfaction with his or her success in meeting his or her career goals and expectations.

Recognizing the importance of the role of teachers in improving the quality of education, the government of Indonesia has tried to make breakthroughs to create competent and professional teachers, prosperous, and dignified. One is by the issuance of Law No. 14 of 2005, concerning teachers and lecturers. These laws provide opportunities for teachers to improve their knowledge, skills, and professional competence, as well as the form of government support in improving the professionalism of teachers, by providing a certificate of professional educators and professional allowance to teachers who have met the requirements.

2. Theoretical Framework

A teacher's sense of identity and belonging is influenced by many factors, not least their experiences, relationships and work environment [5]. Teaching can be done by a novice doctoral student and by a senior lecturer or professor who has taught for decades [6]. The career paths are varied and divergent. In addition, a career is determined by valuations and possibilities with respect to academic work and culture. The career development involves employees to relate their efforts and the world of their work in fashioning their individual work identity [7]. Career teachers' perception of personal impact and influence on students and student learning is a greater predictor of teacher retention than working conditions alone [8]. Personal satisfaction and a sense of caring draws many individuals into the teaching profession. Those individuals making an early career commitment to teaching will also likely remain teachers over time [9]. Job satisfaction for career teachers is often intrinsic to the nature of the work of teaching. Career teachers find great job satisfaction in the affective rewards of teaching, such as helping students learn [3]. More importantly, the author emphasize the influences on and outcomes of career development are one aspect of socialization as part of a broader process of human development in establishing their existence as a social actor in a professional institution. Put another way, the career development will satisfy the individuals need to be acknowledged within a particular social circumstance.

According to authors in reference [10, 11] the efforts on employee development contribute to the employee commitment to the organization improving the work productivity and likewise reducing absenteeism and turnover intentions. This study measures the career development based on the argument modified within [12], underlining five major factors. They are: (1) skills development; (2) the development of career maturity; (3) the sufficient knowledge of the individuals on their job; (4) the employees' expectation on their career development, and; (5) emotional responses, and; (6) the relevancy between employees' job, knowledge and skills with their existing career development.

However, in conducting their educating duties, the teachers face many challenges that influence their efforts in achieving the objectives as earlier mentioned. These challenges are vary among educators which also influenced by particular factors coming from both internal and external conditions of the teacher [13]. More specifically, according to [14,15 and 16] ; factors related to the individual psychological condition e.g. individual satisfaction, work condition, pride, and motivation are considered as the determinants for internal factors of individual to maximize their performance. Externally, the teachers' career development can be reflected in the workplace condition, the social-relationship among the teacher, colleagues and stakeholders, and the provision of jobrelated training that beneficial to maintain teacher's professionalism [17].

The school atmosphere is a unique condition as this is the place where various social interests are integrated. The characteristic of this social interactions also varies across educational levels, from elementary to post-graduate, or educational systems, between general and vocational schools. The arguments to decide which side to be more emphasized have been remained unsolved [18]. For instances, such schools establish their particular role in different societies. In a more details, these authors illustrate that the Germany's system – which involves fully vocational schools as well as those mixing vocational and general education – is highly regarded and consisted over half of the country's upper secondary students.

The Indonesian education system has also faced quite challenges in equipping the students for the successfulness of their further academic paths. In particular, Hendayana et.al [19] highlight the disproportion number of qualified teachers between secondary schools (including vocational schools) and primary schools as one of the major concern affecting the low quality in the teaching process. Accordingly, [20] emphasizes that the importance on teachers' training to improve teachers' performances to strengthening the teaching and learning process in the actual classrooms. Thus, it will further create the dynamic growth and elevate the knowledge index of local students in the Asian region.

As mentioned earlier, career development among teachers, if not addressed seriously, will further affect the education of the young generation. To the best of the author's knowledge, very limited study have been demonstrated the influence of individual characteristic and job characteristic on career development of educational workers, particularly on teachers in the vocational schools. Given the importance of the study, this research aims to analyze the influence of individual characteristic and job characteristic. As described in the previous section, the basic premise of this study underlines that individual characteristic, and job characteristic, on career development of educational workers, particularly on teachers in the vocational schools.

It is derived from the trait and factor theory complemented with the Hackman and Oldham's job characteristic models to further rationalize the research framework of this study [21]. Figure 1 provides a visualization of the relationship between individual characteristic and job characteristic with career development.

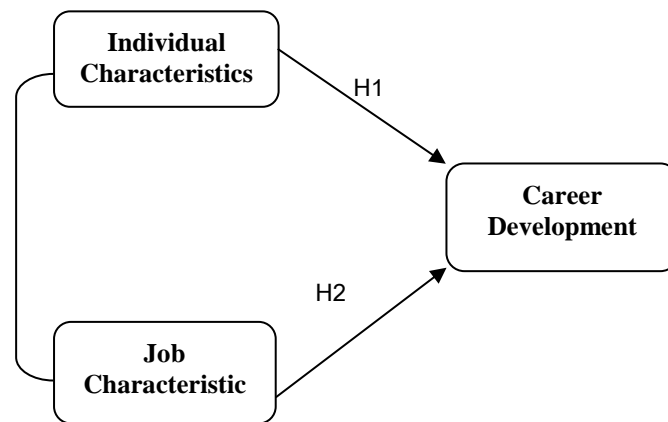


Figure 1: Research Model

For the purpose to explain the objective of study set earlier on, this study develops two major hypotheses focusing on the direct relationship between all independent variables (individual characteristics and job characteristics) and career development. The overall hypotheses are described as follows:

Hypothesis 1. The individual characteristics *directly* influences the career development.

Hypothesis 2. The job characteristics *directly* influences the career development.

3. Material and Method

3.1 Types of Research

In accordance with the purpose of the study, to examine the events that have occurred and then trace backwards to determine the factors, this research include expost facto research. Furthermore, based on the formulation of the problem, namely: to determine and assess the effect of exogenous variables on the endogenous variables, this namely exploratory research.

3.2 Population and Sample

The population consisted of 238 vocational school teachers from state and private vocational schools in the Province of North Sumatera, Indonesia. The population of this study was all teachers who are specialized on the subject of Mechanical Engineering Skills who was obtained from the Directorate of Elementary Teachers Education [22]. The sample size of this study was gathered based on the proportional random sampling based on Slovin [23] at the 5% significance level, which further resulting a total number of 166 teachers who were found having the expected qualification.

3.3 Data Collection Techniques

Data of individual characteristics, job characteristics and career development captured using a multiple-choice questionnaire Likert scale models. Further tests on 40 vocational school teachers outside the target sample, which is to test the validity and reliability. For the purpose of data collection, a questionnaire was developed as the main instrument of this study and distributed to all samples. All of items questioned within the instruments were constructed relevant to research objectives, research questions, and literature review references.

3.4 Data Analysis Techniques

To test the hypotheses, this study used a path analysis method. The path analysis approach is suitable to determine the magnitude and significance of the causal relationship between the observed variables (see Figure 1. Research Framework). The author also underline that the path analysis is more powerful to measure the causal relationship using the mediating variable(s) in a single model without segregating several regression testing. The testing result will estimate the structure of the main path from the independent variable(s) to a dependent variable. The main path will be indicated from a standardized regression coefficient, demonstrating whether there is a direct effect or indirect effect occurred within the research model. ASpecht's Goodness of Fit Estimate was used to examine that the model fits the data based upon how well the model reproduces the observed correlation matrix [24]. The author suggests a perfect fit would give a Q of one; less than perfect fits yield Q 's less than one.

4. Findings And Discussion

4.1 Findings

Data to be presented in this section include variable Individual Characteristics, Job Characteristics and Career Development. The data is the result of quantification of respondents' answers to the samples selected. The number of questionnaires were distributed was 166 sets according to the number of research samples. Description of the data were presented in summary in Table 1, Table 2 and Table 3.

- 1) The trend level variables Individual Characteristics

Table 1: The trend level variables Individual Characteristics

No	Interval Class	Absolute Freq.	Relative Freq.	Catagory
1	> 166	20	12,0	High
2	154 – 165	80	48,2	Enough
3	142 – 153	46	27,7	Less
4	< 141	20	12,0	Low
Total		166	100	

Based on the table above were obtained level variable tendency of individual characteristics of respondents predominantly in enough categories by 48.2 per cent, so it can be concluded that the overall conclude that individual characteristics tend in the category quite well. The tendency for individual characteristics that are in pretty good category identifies that; (a) The perception of vocational school teachers in North Sumatra to the age associated with the event running tasks or work provided by schools in accordance with expectations, (b) perceptions of vocational teachers in North Sumatra on placement tasks assigned principals have been adjusted with tenure and its level of experience, (c) Perception of vocational school teachers in North Sumatra on track levels of formal education and non-formal experienced has been supporting the implementation of tasks or jobs in schools, (d) perceptions of vocational teachers in North Sumatra stated that the assignment or job placement has been adjusted for age and sex, (e) Teachers of vocational schools in North Sumatra has a spirit (morale) for carrying out tasks or jobs given principal.

2) The trend level variables Job Characteristics

Table 2: The trend level variables Job Characteristics

No	Interval Class	Absolute Freq.	Relative Freq.	Catagory
1	> 174	12	7,2	High
2	159 – 173	66	39,8	Enough
3	144 – 158	64	38,6	Less
4	< 143	24	14,5	Low
Total		166	100	

Based on the table above were obtained level job characteristics variable tendency of respondents predominantly in the fair category of 39.8 percent, so it can be concluded that the overall concluded that the characteristics of the work tends to be in pretty good category. The tendency in the category of job characteristics that identify a good enough; (a) Diversity of skills possessed by teachers of vocational schools in North Sumatra has been adjusted by the principal associated with a given task, (b). The work left to the teachers have been given the clarity of the stages of the work to be done and clear job description, (c) Work in charge has been given has been understood to have significance for themselves and on others, (d) Work in charge has been given discretion in completing the work and the authority to make decisions and (e) work charged has been given feedback about the success that has been achieved and the suitability of the work carried out by the employer wishes.

3) The trend level variables Career Development

Based on the table below were obtained variable levels of career development tendency of respondents predominantly in enough categories which amounted to 42.8 per cent, so it can be concluded that the overall concluded that career development tend to be in pretty good category.

Based on these categories can be concluded that the principal policy for this in the form of promotion, transfer, demotion, training and development has been able to (a) develop the skills and work, (b) assist the growth levels, (c) increase the knowledge of the work carried, (d) provide the teacher's expectations in career advancement in employment, and (e) meets the fit between work, knowledge, skills teacher hierarchy.

Table 3: The trend level variables Career Development

No	Interval Class	Absolute Freq.	Relative Freq.	Catagory
1	> 195	32	19,3	High
2	179 – 194	71	42,8	Enough
3	163 – 178	53	31,9	Less
4	< 162	10	6,0	Low
Total		166	100	

As per the requirements of the analysis used to test the hypothesis, then with the help of the computer program SPSS for Windows version 20 test data normality, linearity test and regression significance test. Based on the results of normality test data for each variable obtained Asymp research. Sig (2 - tailed) > 0.05, so it can be concluded that the data individual characteristics, job characteristics and career development, is normally distributed.

Based on the theoretical perspective earlier mentioned, this study expects that individual characteristics and job characteristics are determinant factors of the teachers' career development in vocational schools in the Province of North Sumatera. Before conducting hypothesis testing's, we examined bivariate correlation between two different variables and the results are in-line with the hypothesized relationships (see Table 4). Accordingly, path coefficients in the path analytical method are extracted using Maximum Likelihood (ML) estimation (see figure 2).

Table 4: Path Coefficient and significance levels for initial model

Hypothesis	Correlation Coefficient	Path Coefficient
1	0,247	0,255*
2	0,387	0,535*

*Significance at the 0.001 level (2-tailed)

The results from hypotheses tests reveal that all hypotheses ($H_1 - H_2$) are accepted. In a more detail, the results indicates that:

- 1- Individual Characteristics *directly* influence Career Development ($p=0.255$, significant at 0.001)
- 2- Job Characteristics *directly* influence Career Development ($p=0.535$, significant at 0.001)

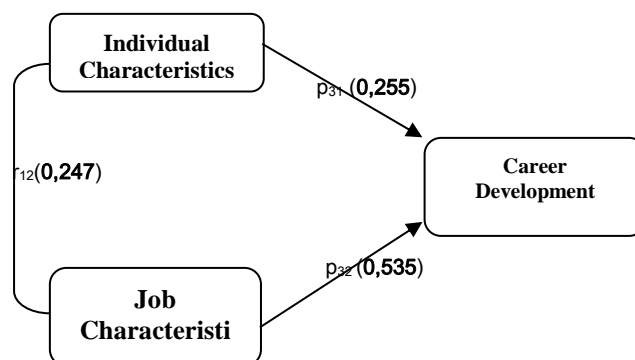


Figure 2: The Result of Path Analysis Model

4.2 Conclusions

The results of hypotheses tests indicates that Individual Characteristics and Job Characteristics partially (as well as simultaneously) influence Teachers' Career Development in Vocational Schools in the Province of North Sumatera Utara, Indonesia. In brief, the overall findings also consistent studies highlighting that individual demographic and job characteristics variables are considered as significant determinants for employees' career development. This study support the reality on the ground where the indicator of age, years of service, level of education, gender and work ethic of vocational teachers in North Sumatra has received great attention from leaders in carrying out job duties so as to enhance their career development.

Then the individual characteristics associated with work experience is often used as a reference for the career development of teachers. Work experience is closely related to the working masses. Promotion as part of career development always be a top priority in the promotion action. With the experience of a teacher will be able to develop the skills that teachers continue to work with the hope that will be promoted to a higher level. Accordingly, the findings of this study confirms the traits and factor theory highlighting the differences in individual presences and capacities that influence their preciseness on the satisfactory of their professional occupations [25]. This finding is consistent with the finding that career teachers find great job satisfaction in the affective rewards of teaching, such as helping students learn [3] and career satisfaction may be defined as a teacher's satisfaction with his or her success in meeting his or her career goals and expectations [4]. Traits are signified from the internal attributes of individual characteristics, and Factors are derived from external drives as reflected in job characteristics and career development.

The findings of this study are consistent with the research Eka and the results Tito, who found that job satisfaction is a significant positive direct effect on career development [26, 27]. Effective professional development for teachers supports teacher motivation and commitment to the learning process. It combines the needs of individuals with school or district goals [28, 29]. The variable job characteristics of a well-managed work through the fulfillment of the diversity of skills, job identity, task significance, autonomy and feedback can make an impact on career development. Factors job characteristics needed for career development of teachers in elementary schools as redesigning a job.

Designing a job for the career development of teachers can be analyzed to be used as material for principals in determining where the characteristic to be changed. Furthermore, it can be said that career development is also associated with a number of different activities by a specific job and the repetition of the work cycle. The fewer the number of tasks the higher the frequency of repetition, the more narrow or low coverage work. Further career development related to the depth of the work related to the content of a teacher can control the extent of their duties. Furthermore, it is said that if the teachers of vocational school specified purpose and the main task, then given entirely to the vocational school teachers to determine how best to implement them, then the depth of high job. If the principal organizing career development with a very detailed, set standards with rigid work, and done with strict supervision, then career a teacher will be more transparent. However, there are several limitations for further concerns in future studies. First, this study was conducted in the Province of North Sumatera and the results may provide particular magnitude to the respective region. The sample size also raised concern for the generalizability issue. Hence, future studies can consider these limitations to provide a stronger justifications on the level of magnitude and directions of the relationship among observed variables in a broader scope of analysis.

5. Conclusions

The results of this study are ; 1) Individual characteristics directly affect the career development of vocational teachers in North Sumatra, and 2). Job characteristics directly affect the career development of teachers of vocational schools in North Sumatra. The findings from this study also underline the importance on minimizing the gap among personal characteristics and improving the clarity of job assigned relevant to teachers' competencies through proper and continuous career development. Thus, it can maximize teachers' commitment and motivation to achieve the goals of their respective educational institution. Respectively, it will also assist the accomplishment of the general objectives of national educational system.

References

- [1] BPSDMK & PMK, (2012), Data Uji Kompetensi Awal Guru SMK tahun 2012
- [2] Jumanta, "Pengaruh Sistem Imbalan, Pengetahuan pedagogik, persepsi tentang profesi dan kinerja terhadap kepuasan kerja guru", *Disertasi*. Jakarta: Program Pascasarjana Universitas Negeri Jakarta, 2013.
- [3] Nias, (1989), *Primary teachers talking: A study of teaching as work*, New York: Routledge
- [4] Conley, S. C., Bacharach, S. B., & Bauer, S. (1989). The school work environment and teacher career dissatisfaction. *Educational Administration Quarterly* 25(1), 58–81
- [5] Hong. S.C, Factor Influencing job satisfaction on goernment secondary schoool teachers in district of Petaling, Selangor (master's thesis, University Putra Malaysia), 1999.
- [6] Vesa Korhonen and Sirpa Törmä, 2014, Engagement with a teaching career – how a group of Finnish university teachers experience teacher identity and professional growth, *Journal of Further and Higher Education*, 20 May 2014
- [7] Monis, S. H. and Sreedhara, T. N. (2011). "Employee Satisfaction with Career Development Practices: A Comparative Study of Indian and Foreign MNC BPO Firms", *Journal of Arts Science & Commerce*, Volume II, Issue1, pp. 110-122.

- [8] Weiss. H.M, JP Nicholas, CS Daus, 1999, An examination of the joint effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time, *Organizational behavior and human decision processes* 78 (1), 1-24.
- [9] Marso, R. N., & Pigge, F. L. (1997). A longitudinal study of persisting and nonpersisting teachers' academic and personal characteristics. *The Journal of Experimental Education*, 65(3), 243-254
- [10] Franěk, M. and Večeřa, J. (2010). "Personal Characteristics and Job Satisfaction", *Ekonomika Management*.
- [11] Said, N. A. and Munap, R. (2010). "Job Characteristics and Job Satisfaction: A Relationship Study on Supervisors Performance", *Proceedings of the 2010 IEEE ICMIT*, pp.714-719.
- [12] Hansen. L.S., "Career Development Education: Humanizing Focus for educators", *Journal of Career Development*. June, Volume 3, 42-48. 1976
- [13] Porter, A. C. (1989). "External Standards and Good Teaching: The Pros and Cons of Telling Teachers What to Do". *Educational Evaluation and Policy Analysis*, Volume 11, Number. 4, pp. 343-356.
- [14] Semiwoliba, A.J Theacher motivation and job satisfaction in senior high school in the Tamelle metropolis of Ghana, *Merit Research Journal of education and Review*, Vol 1(9), 181-196, October 2013.
- [15] Filak V. F. and Sheldon K. M. (2003). Student psychological need satisfaction and college teacher-Course evaluations, *Educational Psychology*, 23 (3), pp. 235-247.
- [16] Tietjen, M.A and Myer, R.M. (2003). "Motivation and job satisfaction", *Management Decision*, Volume 36, Issue 4, pp. 226-231. 1998.
- [17] Leithwood, W. (2006). *Teacher Working Conditions That Matter: Evidence for Change*, Published by the Elementary Teachers' Federation of Ontario.
- [18] Hanushek, Eric A. Susane Link and Ludger Woessmann "Does school autonomy make sense everywhere ? Panel estimates from PISA", NBER Working paper 17591. 2011
- [19] Hendayana, S., Supriatna, A., & Imansyah, H. (2010). Indonesia's issues and challenges on quality improvement of mathematics and science education. Paper presented at the Africa-Asia University Dialogue for Educational Development: Efforts towards improving the quality of education. Retrieved January 4, 2014 from http://aadce.hiroshima-u.ac.jp/e/research/paper_no4-1.pdf
- [20] Daniel, E.G.S, 2013, "Asia Pacific Science Education in a Knowledge Society", *Asia Pacific Journal of Education*, Vol. 33, No. 2, pp. 170–182.
- [21] Hackman, J. R. & Oldham, G. R. (2005). *How Job Characteristics Theory Happened*. The Oxford Handbook of Management Theory: The process of theory development, 151-170.
- [22] Direktorat Pembinaan Pendidik dan Tenaga Kependidikan Pendidikan Menengah tahun 2012, Data Rekap Guru, <http://ptkdikmen.kemdiknas.go.id/content/data-rekap-guru>, retrieved from November 6, 2012.
- [23] Husein Umar, (1996), *Metode Penelitian untuk skripsi, thesis dan bisnis*, Jakarta Raja Grafindo.
- [24] Asher, H.B. 1983. *Causal Modeling*. Sage Publications, Newbury Park, CA.
- [25] Chen, T.Y., Chang, P. L., and Yeh, C. W. (2004). "A Study of Career Needs, Career Development Programs, Job Satisfaction and the Turnover Intentions of R&D Personnel", *Career Development International*, Volume 9, Issue 4, pp.424 – 437.

- [26] Eka Daryanto. “Pengaruh Karakteristik Individu, Karakteristik Pekerjaan dan Pengembangan Karir Terhadap Kepuasan Kerja Guru SMK di Sumatera Utara”. *Disertasi*. Medan: Program Pascasarjana Universitas Negeri Medan, 2015.
- [27] Tito Adji Siswantoro. “Analisis pengaruh karakteristik individu dan karakteristik organisasi terhadap pengembangan karir pegawai (studi kasus pada kantor badan pengawas pasar modal dan lembaga keuangan Departemen Keuangan)”, *Thesis*, Pascasarjana UNS Solo, 2009.
- [28] King, B. & Newmann, F. (2004). Key link: Successful professional development must consider school capacity. *Journal of Staff Development*, 25(1), 26-30.
- [29] Flores, M. (2005). How do teachers learn in the workplace? Findings from an empirical study carried out in Portugal. *Journal of In-service Education*, 31(3), 485-508.